

From the INTERNATIONAL BUREAU

**PCT**NOTIFICATION CONCERNING  
TRANSMITTAL OF COPY OF INTERNATIONAL  
PRELIMINARY REPORT ON PATENTABILITY  
(CHAPTER I OF THE PATENT COOPERATION  
TREATY)

(PCT Rule 44bis.1(c))

To:

LOTTI, Giorgio  
Ing. Barzanò & Zanardo Milano S.p.A.  
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ITALIEDate of mailing (*day/month/year*)  
06 April 2006 (06.04.2006)Applicant's or agent's file reference  
PCT 2407**IMPORTANT NOTICE**International application No.  
PCT/EP2004/007846International filing date (*day/month/year*)  
15 July 2004 (15.07.2004)Priority date (*day/month/year*)  
26 September 2003 (26.09.2003)

Applicant

RIGAT, Marco

The International Bureau transmits herewith a copy of the international preliminary report on patentability (Chapter I of the Patent Cooperation Treaty)

The International Bureau of WIPO  
34, chemin des Colombettes  
1211 Geneva 20, Switzerland

Authorized officer

Agnes Wittmann-Regis

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# PATENT COOPERATION TREATY

# PCT

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference PCT 2407	<b>FOR FURTHER ACTION</b>	See item 4 below
International application No. PCT/EP2004/007846	International filing date ( <i>day/month/year</i> ) 15 July 2004 (15.07.2004)	Priority date ( <i>day/month/year</i> ) 26 September 2003 (26.09.2003)
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237		
Applicant RIGAT, Marco		

1.	This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 bis.1(a).																								
2.	<p>This REPORT consists of a total of 11 sheets, including this cover sheet.</p> <p>In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.</p>																								
3.	<p>This report contains indications relating to the following items:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 10%; text-align: center;"><input checked="" type="checkbox"/></td> <td style="width: 30%;">Box No. I</td> <td style="width: 60%;">Basis of the report</td> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td>Box No. II</td> <td>Priority</td> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td>Box No. III</td> <td>Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</td> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td>Box No. IV</td> <td>Lack of unity of invention</td> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td>Box No. V</td> <td>Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. VI</td> <td>Certain documents cited</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. VII</td> <td>Certain defects in the international application</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. VIII</td> <td>Certain observations on the international application</td> </tr> </table>	<input checked="" type="checkbox"/>	Box No. I	Basis of the report	<input checked="" type="checkbox"/>	Box No. II	Priority	<input checked="" type="checkbox"/>	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability	<input checked="" type="checkbox"/>	Box No. IV	Lack of unity of invention	<input checked="" type="checkbox"/>	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement	<input type="checkbox"/>	Box No. VI	Certain documents cited	<input type="checkbox"/>	Box No. VII	Certain defects in the international application	<input type="checkbox"/>	Box No. VIII	Certain observations on the international application
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4.	The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis .2).																								

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland  Facsimile No. +41 22 740 14 35	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 2px;">Date of issuance of this report 27 March 2006 (27.03.2006)</td> </tr> <tr> <td style="padding: 2px;">Authorized officer  <div style="text-align: center; font-weight: bold;">Agnes Wittmann-Regis</div></td> </tr> <tr> <td style="padding: 2px;">Telephone No. +41 22 338 89 70</td> </tr> </table>	Date of issuance of this report 27 March 2006 (27.03.2006)	Authorized officer  <div style="text-align: center; font-weight: bold;">Agnes Wittmann-Regis</div>	Telephone No. +41 22 338 89 70
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Telephone No. +41 22 338 89 70				

# PATENT COOPERATION TREATY

From the  
INTERNATIONAL SEARCHING AUTHORITY

REC'D 21 FEB 2005

WIPO

PCT

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To:

see form PCT/ISA/220

*F/A*

## WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing  
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference  
see form PCT/ISA/220

**FOR FURTHER ACTION**  
See paragraph 2 below

International application No.  
PCT/EP2004/007846

International filing date (day/month/year)  
15.07.2004

Priority date (day/month/year)  
26.09.2003

International Patent Classification (IPC) or both national classification and IPC  
A43B5/04

Applicant  
RIGAT, Marco

### 1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☒ Box No. II Priority
- ☒ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☒ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

### 2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

### 3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



European Patent Office  
D-80298 Munich  
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Authorized Officer

Vesin, S

Telephone No. +49 89 2399-7489



**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
PCT/EP2004/007846

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**Box No. I Basis of the opinion**

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1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
  - ☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
  - a. type of material:
    - ☐ a sequence listing
    - ☐ table(s) related to the sequence listing
  - b. format of material:
    - ☐ in written format
    - ☐ in computer readable form
  - c. time of filing/furnishing:
    - ☐ contained in the international application as filed.
    - ☐ filed together with the international application in computer readable form.
    - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
PCT/EP2004/007846

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**Box No. II    Priority**

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1. ☒ The following document has not been furnished:

☒ copy of the earlier application whose priority has been claimed (Rule 43*bis*.1 and 66.7(a)).

☐ translation of the earlier application whose priority has been claimed (Rule 43*bis*.1 and 66.7(b)).

Consequently it has not been possible to consider the validity of the priority claim. This opinion has nevertheless been established on the assumption that the relevant date is the claimed priority date.

2. ☐ This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43*bis*.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.

3. ☐ It has not been possible to consider the validity of the priority claim because a copy of the priority document was not available to the ISA at the time that the search was conducted (Rule 17.1). This opinion has nevertheless been established on the assumption that the relevant date is the claimed priority date.

4. Additional observations, if necessary:

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
PCT/EP2004/007846

**Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability**

The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non obvious), or to be industrially applicable have not been examined in respect of:

- ☐ the entire international application,
- ☒ claims Nos. 1, 16-19, 21-50

because:

- ☐ the said international application, or the said claims Nos. relate to the following subject matter which does not require an international preliminary examination (*specify*):
- ☐ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. are so unclear that no meaningful opinion could be formed (*specify*):
- ☐ the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed.
- ☒ no international search report has been established for the whole application or for said claims Nos. 1, 16-19, 21-50
- ☐ the nucleotide and/or amino acid sequence listing does not comply with the standard provided for in Annex C of the Administrative Instructions in that:
  - the written form ☐ has not been furnished
  - ☐ does not comply with the standard
  - the computer readable form ☐ has not been furnished
  - ☐ does not comply with the standard
- ☐ the tables related to the nucleotide and/or amino acid sequence listing, if in computer readable form only, do not comply with the technical requirements provided for in Annex C-*bis* of the Administrative Instructions.
- ☐ See separate sheet for further details

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
PCT/EP2004/007846

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**Box No. IV Lack of unity of invention**

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1. ☒ In response to the invitation (Form PCT/ISA/206) to pay additional fees, the applicant has:
- ☐ paid additional fees.
  - ☐ paid additional fees under protest.
  - ☒ not paid additional fees.
2. ☐ This Authority found that the requirement of unity of invention is not complied with and chose not to invite the applicant to pay additional fees.
3. This Authority considers that the requirement of unity of invention in accordance with Rule 13.1, 13.2 and 13.3 is
- ☐ complied with
  - ☒ not complied with for the following reasons:  
**see separate sheet**
4. Consequently, this report has been established in respect of the following parts of the international application:
- ☐ all parts.
  - ☒ the parts relating to claims Nos. 1-15,20

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**Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

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1. Statement

Novelty (N)	Yes: Claims	7-15
	No: Claims	1-6,20
Inventive step (IS)	Yes: Claims	
	No: Claims	7-15
Industrial applicability (IA)	Yes: Claims	1-15,20
	No: Claims	

2. Citations and explanations

**see separate sheet**

**Re Item IV.**

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

Claims 1-15,20: Controlling bending action by means of collapsible chambers,  
Claims 1,16-19: Controlling bending action by means of tongues and bending lines,  
Claims 1,21-22: Controlling bending action by means of a flexion rod connected to the collar,  
Claims 1,23-28: Controlling bending action by means of a flexion frame,  
Claims 1,29-30: Controlling bending action by means of a tuning fork,  
Claims 1,31-32,33: Controlling bending action by means of a shaped housing able to receive a cushion or flat appendices,  
Claims 1,34-36: Controlling bending action by means of springy elements,  
Claims 1,37-42: Controlling bending action by modifying the sole structure,  
Claims 1,43-49: Controlling bending action by means of bellows and stiffening elements,  
Claims 1,50: Controlling bending action by heat deformation of the boot using piezo-electric elements.

They are not so linked as to form a single general inventive concept (Rule 13.1 PCT) for the following reasons: The problem underlying the invention stated in the independent claim 1 is not novel and the same solution to it has already been found, see document WO 02/094047 (D1), which discloses, in combination, all the features as defined in the present independent claim 1. Therefore, the original single general inventive concept also covering the subject matter of the claims 2 to 50 is not acceptable anymore, making it necessary to re-establish the technical relationship or interaction of the technical features stipulated in said dependent claims.

This leads to a regrouping under different subjects as listed above, each subject now having its own distinct inventive concept, having a technical distinct and independent feature.

The special technical features, as defined in Rule 13.2 PCT, of the first group of claims, which are intended to be a contribution over this prior art, i.e. the features of having



collapsible chambers fillable with air, apparently solve the problem of providing a flexible articulation which is adjustable.

The special technical features, as defined in Rule 13.2 PCT, of the second group of claims, which are intended to be a contribution over said prior art, i.e. the features of having tongues is already known from D1.

The special technical features, as defined in Rule 13.2 PCT, of the third group of claims, which are intended to be a contribution over said prior art, i.e. the features of having a flexion rod connected to the collar, apparently solve the problem of stiffening the bending of the ankle joint.

The special technical features, as defined in Rule 13.2 PCT, of the fourth group of claims, which are intended to be a contribution over this prior art, i.e. the features of having a flexible frame, apparently solve the problem of providing replaceable bending elements.

The special technical features, as defined in Rule 13.2 PCT, of the fifth group of claims, which are intended to be a contribution over this prior art, i.e. the features of having a vibrating element, apparently solve the problem of providing an alternative non-adjustable flexible articulation.

The special technical features, as defined in Rule 13.2 PCT, of the sixth group of claims, which are intended to be a contribution over said prior art, i.e. the features of having a shaped housing or appendices, apparently solve the problems of providing another alternative non-adjustable flexible articulation.

The special technical features, as defined in Rule 13.2 PCT, of the seventh group of claims, which are intended to be a contribution over said prior art, i.e. the features of having an elastic member, apparently solve the problem of providing a flexible articulation with a restoring force.

The special technical features, as defined in Rule 13.2 PCT, of the eighth group of claims, which are intended to be a contribution over said prior art, i.e. the features of having sole elements, apparently solve the problems of providing an adjustable flexible sole.

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING  
AUTHORITY (SEPARATE SHEET)**

International application No.

PCT/EP2004/007846

The special technical features, as defined in Rule 13.2 PCT, of the ninth group of claims, which are intended to be a contribution over said prior art, i.e. the features of having bellows with stiffening elements, apparently solve the problems of providing a limited flexible articulation.

The special technical features, as defined in Rule 13.2 PCT, of the tenth group of claims, which are intended to be a contribution over said prior art, i.e. the features of having piezo-electric elements, apparently solve the problem of deforming by heat.

No same or similar special technical features can be determined and different underlying problems are solved. Moreover, it is clear that the 10 claimed inventions can be applied independently of each other, i.e they are not necessarily inter-related.

It appears therefore that no technical relationship between the various claimed inventions exists involving one or more of the same or corresponding special technical features, beside the common and already well known feature of providing a foot support, see document D1. The 10 groups of claims are thus not so linked as to form a single general inventive concept.

The application relates to a plurality of inventions, or groups of inventions, in the sense of Rule 13.1 PCT. They have been divided as defined above. Since the applicant neither restricted the claims nor paid additional fees the examination will be only carried out for the main (first) invention, which has been searched, ie. claims 1-15,20.

**Re Item V.**

**1. STATE OF THE ART**

The following documents are referred to in this communication:

D1 : WO 02/094047 A

D2 : EP 1 023 849 A

D3 : US 4 843 740 A

**2. INDEPENDENT CLAIM 1**

- 2.1 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 1 is not novel in the sense of Article 33(2) PCT.  
Document **D1** discloses all the features of the claim, see in particular page 4, line 10 to page 5, line 2 and figures 1,2,9,12,38a and 38b.
- 2.2 The present application does not meet the criteria of Article 33(1) PCT, because the subject matter of claim 1 does not involve an inventive step in the sense of Article 33(3)PCT.
- 2.2.1 Document **D2**, which is considered to represent the most relevant state of the art to the subject matter of claim 1, discloses a telemark boot with a containing hull and a flexible articulation arranged in the metatarsal joint.
- 2.2.2 The subject-matter of independent claim 1 differs from the disclosure of **D2** in that the boot comprises control means of the bending action in correspondence with said flexible articulation.
- 2.2.3 The problem to be solved by the present invention may therefore be regarded as providing adjusting of the flex in the metatarsal region.
- 2.2.4 In view of **D3** the solution proposed in claim 1 of the present application cannot be considered as involving an inventive step (Article 33(3) PCT) for the following reasons: Adjusting the flex with control means is known from **D3** applied in the instep region of a ski boot.
- 2.2.5 Therefore the skilled person would incorporate the control means of **D3** in the metatarsal articulation disclosed in **D2**, without exercise of any inventive skills in order to solve the problem posed. The proposed solution in independent claim 1 thus cannot be considered inventive (Article 33(3) PCT).
3. DEPENDENT CLAIMS 2-6, 20

- 3.1 Dependent claims 2-6, 20 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of inventive step (Article 33(2) and (3) PCT), since **D3** also show the use of collapsible chambers (see column 5, lines 28 to 47 and figure 8) as control means.
- 3.2 Dependent claims 7-15 appear to relate to minor structural features which, insofar as not directly disclosed in the prior art revealed in the present application or in the search report, represent obvious modifications thereof in order to adjust flexibility. Such features will be selected and used by a man skilled in the art when he needs them, and appear not to involve an inventive step within the meaning of Article 33(3)PCT when combined with the subject-matter of claim 1.